## INTERNATIONAL SEARCH REPORT



	A. CLASSIFIC	CATION OF SUBJE	CT MATTER		
i	IPC 7	H04B1/707	H04L25/03	H041	1/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 HO4B HO4L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

DOCUMENTS		

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
х	US 6 167 081 A (BRADLEY MAYNE H ET AL) 26 December 2000 (2000-12-26) column 3, paragraph 1 column 5, line 57 - line 65 column 5, line 57 - line 61 column 6, line 10 - line 15 column 7, line 8 - line 14 column 7, line 8 - line 14 column 7, line 8 - line 16 column 8, line 47 - line 56	1,15,16, 19,20
	-/	

	Further documents are listed in the	

Patent family members are listed in annex.

Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the International
- filing date
- \*L.\* document which may throw doubts on priority claim(s) or which is ofted to establish the publication date of another citation or other special reason (as specified)
- O document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed
- 'T' later document published after the International titing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relovance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-ments, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search Date of mailing of the international search report

11 October 2004 Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2940, Tx. 31 651 epo nl, Fac: (+31-70) 340-3016

19/10/2004 Authorized officer Moreno, M

Form PCT//SA/210 (second sheet) (January 2004)

## INTERNATIONAL SEARCH REPORT

Interplenal Application No PCT/US2004/017578

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
х	W0 02/09305 A (QUALCOMM INC) 31 January 2002 (2002-01-31) cited in the application  page 3, line 1 - line 3 page 3, line 13 - line 20 page 4, line 24 - line 29 page 9, line 34 - page 10, line 30 page 17, line 17 - line 19 page 30, last paragraph page 32, line 18 - line 24	7-14, 17-19, 23-25, 27-32
A	figure 3	1-6,15, 16, 20-22,26
P,X	WO 2004/017655 A (VAN DAM CATHARINA J H ; CASWELL ANNE C (NL); KONINKL PHILIPS ELECTRONI) 26 February 2004 (2004-02-26) page 3, line 1 - line 9 page 3, line 20 - line 27 page 4, line 14 - line 16 page 5, line 12 - line 23	1,15,16
A	US 5 375 143 A (KAZECKI HENRY L ET AL) 20 December 1994 (1994-12-20) column 2, paragraph 1 column 3, line 4 - line 7 column 4, line 20 - line 39 claims 1,7	1,2,4,6, 1E,16
A	EP 1 128 569 A (NIPPON ELECTRIC CO) 29 August 2001 (2001-08-29) column 6, line 20 - line 36 figure 4	1,7, 15-19
А	WO 02/23742 A (BOTTOMLEY GREGORY E; MOLNAR KARL JAMES (US); ERICSSON INC (US); HUSEY) 21 March 2002 (2002-03-21) page 6, line 17 - line 24 page 6, line 28 - line 31 page 9, line 28 - line 32 page 12, line 17 - line 25 page 13, line 3 - line 5	1,2,7, 10,15-20
A	EP 1 233 536 A (MATSUSHITA ELECTRIC IND CO LTD) 21 August 2002 (2002-08-21) column 1, line 12 - line 18 column 6, line 36 - line 52 figures 3,4	1,3,7, 10, 15-19, 30,31

## INTERNATIONAL SEARCH REPORT

nte	ional Application No	
PCT/	US2004/017578	

			520047 017570
Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6167081	26-12-2000	0003978 A 1081904 A2	23-10-2001 07-03-2001
WO 0209305	31-01-2002	7598801 A 1449603 T 1303920 A2 2004505491 T 541813 B 0209305 A2	05-02-2002 15-10-2003 23-04-2003 19-02-2004 11-07-2003 31-01-2002
WO 2004017655	A 26-02-2004	2004017655 A1	26-02-2004
US 5375143	20-12-1994	5195106 A 2103392 A1 2273228 A 2049501 A1 2251162 A ,E 5241545 A	16-03-1993 04-06-1994 08-06-1994 15-05-1992 24-06-1992 31-08-1993
EP 1128569	29-08-2001	3334648 B2 2000138656 A 2346785 A1 1128569 A1 1123987 B 0027042 A1	15-10-2002 16-05-2000 11-05-2000 29-08-2001 08-10-2003 11-05-2000
WO 0223742	21-03-2002	9066701 A 1455998 T 1319272 A2 0223742 A2 2002044614 A1	26-03-2002 12-11-2003 18-06-2003 21-03-2002 18-04-2002
EP 1233536	A 21-08-2002	2002111538 A 3440068 B2 2002111546 A 9028701 A 1233536 A1 1393062 T 0229998 A1 2002196871 A1	12-04-2002 25-08-2003 12-04-2002 15-04-2002 21-08-2002 22-01-2003 11-04-2002 26-12-2002